

March 20, 2006



U.S. Department  
of Transportation

400 Seventh Street, S.W.  
Washington, D.C. 20590

**Pipeline and  
Hazardous Materials  
Safety Administration**

DOT-SP 6543  
(TWELFTH REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (See individual authorization letter)
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of certain materials described in paragraph 6 below in non-DOT specification cylinders or containers. This special permit provides no relief from the Hazardous Material Regulations (HMR) other than as specifically stated herein.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
  - c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.201, 173.202, 173.203, 173.227 and 173.304a in that non-DOT specification cylinders are not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Praxair, Inc. dated January 9, 2006, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper shipping name	Hazard Class/Division	Identification Number	Packing Group
Acetone	3	UN1090	II
Butyl acetates	3	UN1123	II
Combustible liquid, n.o.s. (n-methyl-2-pyrrolidone)	Combustible liquid	NA1993	III
Corrosive liquid, acidic, inorganic, n.o.s. (germanium tetrachloride)	8	UN3264	I
Dichlorosilane	2.3	UN2189	Hazard Zone B
Dimethyldichlorosilane	3	UN1162	II
Ethyl acetate	3	UN1173	II
Ethyl methyl ketone or Methyl ethyl ketone	3	UN1193	II
Ethylene dichloride	3	UN1184	II
Flammable liquid, corrosive, n.o.s. (Hexamethyldisilazane)	3	UN2924	III
Isopropanol or Isopropyl alcohol	3	UN1219	II
Methanol	3	UN1230	II
Phosphorus trichloride	6.1	UN1809	I
Silicon tetrachloride	8	UN1818	II
Titanium tetrachloride	8	UN1838	II
Toluene	3	UN1294	II
Trichlorosilane	4.3	UN1295	I
Xylenes	3	UN1307	II

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification cylinder or container described as follows:

(1) A non-DOT specification 16 gauge, 304 stainless steel cylinder having a 100 psig design pressure. Valves must be protected by a 12 gauge steel top and bottom skirt which are securely held in place by reinforcing bars. The skirt must be so designed that the valves cannot be operated without removing the two-piece cover. The cylinder must be designed as indicated on M & T Drawing No. 2, dated February 1, 1971, on file with the Office of Hazardous Materials Permits and Approvals (OHMSPA).

(2) A non-DOT specification 14 gauge, 316 stainless steel container having a design pressure of 100 psig. The container must have a 14 gauge steel cover so designed that the valves cannot be opened without removing the cover. Containers must be designed as indicated on Synthatron Corp., Drawing No. 10273 C.C. on file with OHMSPA.

(3) A non-DOT specification 12 gauge, type 316L stainless steel welded container having a 100 psig design pressure. The container must have a 12 gauge steel valve protection cover so designed that the valves cannot be opened without removing the cover. The container must be designed and fabricated in accordance with CAPE Co., Inc.'s Drawing No. DP86075 Rev. B. on file with OHMSPA.

b. TESTING - Cylinders and containers (pressure drums) must be subjected to periodic inspection in accordance with the requirements of § 180.205 as applicable for a DOT Specification 4BW cylinder and the minimum retest pressure must be 167 psig (5/3 service pressure).

c. Operational Controls -

(1) Transportation of a Division 2.3 material (gases which are poisonous by inhalation) is not authorized aboard cargo vessel or aircraft unless specifically authorized in the Hazardous Materials Table (see § 172.101).

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(2) Each non-DOT specification 16 gauge, 304 stainless steel cylinders under this special permit must be shipped at atmospheric temperature and pressure.

(3) Each non-DOT specification 14 gauge, 316 stainless steel containers and non-DOT specification 12 gauge, type 316L stainless steel welded containers under this special permit must:

(i) be blanketed with an inert nonflammable gas during shipment;

(ii) be overpacked in a strong fiberboard box;

(iii) not contain more than 5 pounds of lading;

(iv) be thoroughly cleaned and inspected prior to filling; and

(v) be retested and have new valves installed prior to the first shipment of dimethyldichlorosilane, dichlorosilane, and trichlorosilane.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

c. Packages permanently marked 'DOT-E 6543', prior to October 1, 2007 may continue to be used under this special permit for the remaining service life the package or until the special permit is no longer valid. Packages marked after October 1, 2007 must be marked 'DOT-SP 6543'.

d. Shipping papers displaying 'DOT-E 6543' may continue to be used until October 1, 2007, provided the special permit remains valid.

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9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
  - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term 'exemption' to 'special permit' and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

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12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Robert A. McGuire  
Associate Administrator  
for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm) Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: SStaniszewski/dl/kah